ABSTRACT OF THE DISCLOSURE

A pre-decoder applied to a turbo decoder for decoding a punctured turbo code. The turbo code consists of a plurality of parity bit streams, parts of which are punctured. The pre-decoder has an arithmetic unit for calculating an estimation value of the parity bit streams by carrying out a same algorithm with respect to the data bit stream which is used by a turbo encoder to produce the parity bit streams, a comparison unit for comparing the plurality of parity bit streams with the estimation value, and a recovery unit for substituting the punctured bits of the parity bit streams for bits of the estimation values corresponding to the punctured parts when the respective bits of the parity bit streams are identical with the bits of the estimation values corresponding to the punctured parts. The punctured parity symbols are recovered by the pre-decoder completely, or at least partially, and provided to the turbo decoder. Accordingly, the decoding performance of the turbo decoder is enhanced.